

L'exemplaire filmé fut reproduit grâce à la générosité de:

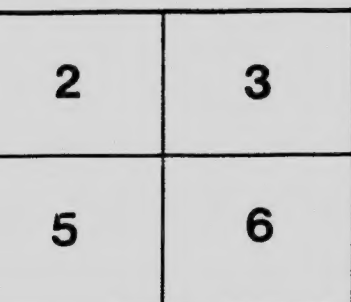
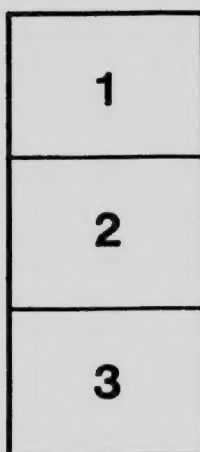
Bibliothèque
Agriculture Canada

Les images suivantes ont été reproduites avec le plus grand soin, compte tenu de la condition et de la netteté de l'exemplaire filmé, et en conformité avec les conditions du contrat de filmage.

Les exemplaires originaux dont la couverture en papier est imprimée sont filmés en commençant par le premier plat et en terminant soit par la dernière page qui comporte une empreinte d'impression ou d'illustration, soit par le second plat, selon le cas. Tous les autres exemplaires originaux sont filmés en commençant par la première page qui comporte une empreinte d'impression ou d'illustration et en terminant par la dernière page qui comporte une telle empreinte.

Un des symboles suivants apparaîtra sur la dernière image de chaque microfiche, selon le cas: le symbole $\rightarrow$ signifie "A SUIVRE", le symbole ∇ signifie "FIN".

Les cartes, planches, tableaux, etc., peuvent être filmés à des taux de réduction différents. Lorsque le document est trop grand pour être reproduit en un seul cliché, il est filmé à partir de l'angle supérieur gauche, de gauche à droite, et de haut en bas, en prenant le nombre d'images nécessaire. Les diagrammes suivants illustrent la méthode.



PROVINCE OF BRITISH COLUMBIA.

DEPARTMENT OF AGRICULTURE (LIVE STOCK BRANCH).

Poultry Rations and their Practical Application.

BY H. E. UPTON, ASSOC. O.A.C., PROVINCIAL POULTRY INSTRUCTOR.



At the present time, when every one should be doing his or her best to make their poultry give the best results with the least expenditure, it is felt that many can better or cheapen their methods by adopting the following formulae, all of which have been worked out on a commercial scale for several years and have given excellent results:—

FEEDING GROWING CHICKS.

Opinions differ in relation to the first feed for growing chicks. After careful experiments and investigation officials of the Department prefer dry bread soaked in sour skim-milk squeezed out and the bread placed on a shingle for fifteen minutes only, four or five times a day from the first feed (chick two days old) to the fourth day of feeding. Several feed well-baked Johnny-cake, crumbled up fine. Others feed a mash of bread-crumbs and raw onions and hard-boiled egg finely crumbled, and many use oatmeal. Any one of these feeds work well. After the chick has become four days old, the chick-feed, either commercial or made up of the following constituents, should be fed:—

Cracked wheat	15 lb.
Pinhead oats or granulated oatmeal	10 "
Fine-screened cracked corn	15 "
Fine-cracked peas	3 "
Broken rice	2 "
Chick-grit	5 "
Fine charcoal	2 "

Or this formula may be used with as good results, yet not giving so much variety:—

Fine-cracked corn	15 lb.
Cracked wheat	15 "
Pinhead oats	10 "

Both these should be thoroughly mixed before being fed to the chicks.

Either formula may be fed as often as five times a day. In fact, smaller quantities fed more often give better results to growing chicks, as it induces them to take more exercise. When one is raising chicks where they may secure worms and insects, they can feed this chick-feed alone with good results in the early spring.

After chicks become six to eight weeks old, the practice of feeding commercial chick-feed may become too expensive. Should this be the case the following mixture may be substituted:—

Fine-cracked corn	200 lb.
Cracked wheat	100 "

This should be fed until chicks are large and old enough to handle a larger-size grain, which is usually at the age of from eight to eleven weeks. At this time it is

advisable to feed two parts of cracked corn to one part of wheat in conjunction with the dry mash recommended.

The chick-feed may be given two or three times a day, and bran and rolled oats (equal parts), or bread-crumbs and onions, or johnny-cake may be fed twice a day, alternating the chick-feed and dry mash. After the chicks are a week old the mash may be gradually richened by adding more rolled oats to the bran, and introducing middlings or low-grade flour into the mash; a good grade of sifted beef-scrap should also be gradually introduced into the mash.

All changes, both of mash and hard grains, should be made gradually, allowing three to seven days for the change to be accomplished.

From seven days to three weeks of age a mash composed of the following constituents may be used:—

Parts by weight—

Wheat-bran	4
Corn-meal	3½
Sifted beef-scrap	2
Middlings	½
Roller oats or oatmeal	2

This must be mixed well before being fed to the chicks.



A number of strong, well-developed cockerels seventeen weeks old. It costs no more to raise good stock.

From three to eight weeks of age a mash composed of the following constituents may be used:—

Parts by weight—

Wheat-bran	2
Corn-meal	3
Ground or crushed oats	2
Middlings	1
Beef-scrap	1
Linseed or soy-bean meal	¾

This must be mixed well without adding any liquid.

The same may be placed in hoppers before the growing stock all the time. From this time on the mash may be changed to suit the needs of the stock as their development will indicate. All changes in feeding must be made gradually.

GREEN FOOD FOR CHICKS.

Chopped lettuce, carefully sprouted oats chopped fine, lawn-clippings, and dandelion-leaves will answer for green food. Later on rape, kale, clover, alfalfa, cabbage, and mangels are good.

The following has proved to be a good laying ration:—

Hard grain—

Cracked corn 200 lb.

Wheat 100 ..

Mixed and fed in litter morning and night, October to April. Equal parts cracked corn and wheat, April to October.

Dry mash—

Bran 200 lb.

Corn-meal 100 ..

Shorts or middlings 100 ..

Beef-scrap 100 ..

Linseed-meal* 25 ..

This must be mixed dry. Mix well, and keep before the stock in hopper all the time. Plenty of grit, charcoal, shell, and green food.

A good winter laying ration may be made as follows:—

Hard grain—

Cracked corn 200 lb.

Wheat 100 ..

This should be mixed and fed in litter morning and evening.

Dry mash—

Ground oats 150 lb.

Beef-scrap 75 ..

It is well to have this mixed and kept before stock in hopper at all times.

If green cut bone can be secured in place of beef-scrap, feed 1½ lb. to twenty-five birds three times a week. Skim-milk may also be before layers when procurable.

Green food is fed for its tonic and stimulative value in the ration. Rape, kale, mangels, clover-leaves, cabbage, and alfalfa-meal steamed are being fed quite extensively throughout the Province with good results.



It costs from 17 to 23 cents per month to feed this kind of stock. Market as broilers (either male or female) when they reach this size. They will never develop properly.

* This means ground flax-seed which usually sells for \$5.25 per 100 lb. on our markets. If linseed-meal is used which costs about \$2.25 per 100 lb., it is advisable to use 50 lb. in this mash one month, then use 35 lb. of soy-bean meal the following month. Then feed the linseed-meal and soy-bean meal alternate months throughout the laying season; 75 lb. of ground oats may also be mixed in this mash if desired.

GRIT, SHELL, AND CHARCOAL.

Sharp grit is a necessity to all fowls and they should always have a supply before them. Oyster or clam shell should always be accessible to laying stock. Charcoal is also necessary and fowls should be able to get as much of this as they need. Charred wood answers this purpose admirably.

FEEDING PULLETS.

Feeding stock for egg production falls practically into two lines—feeding for natural winter-egg production or forcing the stock for eggs. Any stock that the poultryman intends breeding from should be separated and fed differently, if one intends forcing. Forcing stock for egg-production means the feeding of an above normal quantity of animal food or milk-albumen, and soy-bean meal or linseed-meal. This, however, can be overdone if not fed judiciously. Poultry-risers are advised not to feed more than 10 per cent. animal food (e.g., beef-scraps or milk-albumen) or more than 15 per cent. rich concentrated grains (e.g., soy-bean or linseed) together in the mash when forcing for egg production.

In feeding breeders, it is not advisable to feed over 6.5 per cent. of animal food nor over 3.75 per cent. concentrates together in the mash. When feeding breeding stock, the above essentials carefully followed, and allowing plenty of green food, with exercise, ensures a high percentage of fertility. If one can substitute skim-milk for the beef-scraps the fertility (the stock being all it should) may also be bettered.

IMPORTANT NOTES RELATING TO FEEDING.

Buy only the best foodstuffs and examine them as closely as one would seed-grain.

Feed regularly.

Always feed animal and vegetable foods. One does not supplant the other and both are required for successful results.

The wet-mash system may be followed if desired. This is not recommended owing to the great amount of labour entailed, and also to the difficulty in mixing a wet mash thoroughly.

Always buy last season's corn.

Occasional feeds of wet mash will tend to keep heavy laying stock in good condition, and will also assist one in advancing backward pullets more quickly. Rather than cook any food for the fowls it is advisable to pour boiling water over the food-stuff and feed it before it gets sour.

Examine litter in which you feed the hen again and find out yourself whether you are feeding too much to your stock.

Where it is at all possible, poultrymen should purchase co-operatively.

FOODS HIGH IN FIBRE.

Foods which are high in fibre content are not easily digested, and therefore should never be fed abundantly and should never be used regularly unless they can be purchased cheaply or grown at home.

Foodstuff.	Percentage of Fibre.
Sunflower	28.5
Buckwheat	8.7
Millet	0.5
Brewer's grain	15.9
Kaffir corn	1.6
Bran	7.2
Alfalfa-hay	25.0
Clover-hay	25.0

Foods Rich in Vegetable Protein.—Linseed-meal, 32.9 per cent.; soy-bean meal, 34 per cent.; gluten-meal, 29.4 per cent.

Foods Rich in Animal Protein.—Beef-scraps, 58 per cent.; green bone, 22.3 per cent.; skim-milk, 2.0 per cent.

RESULTS OF EXPERIMENTS.

Corn shows a higher digestibility than many other grains.

Brass shows a lower digestibility than many other grains, and is not an economical feed when it costs \$32 per ton, except for its bulk. A mixture of equal parts dry, early, fine-cut clover and corn-meal is more digestible and a more economical feed than brass.

BOOKS ON FEEDING.

"Feeds and Feeding."—Henry.

Bulletins—

- No. 184, Maine Agricultural Experimental Station, Orono, Maine.
- " 242, New York Agricultural Experimental Station, Geneva, N.Y.
- " 265, New York Agricultural Experimental Station, New Brunswick, N.J.

LIST OF POULTRY CIRCULARS AND BULLETINS ISSUED BY THE DEPARTMENT OF AGRICULTURE, VICTORIA.

BULLETINS.

- No. 20, Practical Poultry-raising.
- " 29, Natural and Artificial Incubation and Brooding.
- " 40, Market Poultry.
- " 55, Care and Marketing of Eggs.
- " 63, Poultry-house Construction.

CIRCULARS.

- No. 2, Tuberculosis in Poultry.
- " 3, Construction of Fresh-air Brooders.
- " 4, Management of Turkeys.
- " 7, Keeping Poultry free from Lice.
- " 11, Poultry-keeping on a City Lot.
- " 12, Management of Geese.

REPORTS.

Second Egg-laying Contest at Victoria, B.C.
Third Egg-laying Contest at Victoria, B.C.
British Columbia Poultry-breeders' Directory.

VICTORIA, B.C.:

Printed by WILLIAM H. CULLIN, Printer to the King's Most Excellent Majesty.
1910.



